

Abstract

5 The present invention has found that the Mts1
protein is expressed in white matter astrocytes in the
spinal cord. Such expression is significantly increased
following sciatic nerve injury or dorsal root injury,
particularly in astrocytes surrounding dorsal funiculus
containing the central processes of the injured primary
sensory neurons. The present invention has further
10 demonstrated that Mts1 proteins administered
extracellularly promote neurite outgrowth from neuronal
cells. Based on these surprising findings, the present
invention provides compositions and methods that are
useful for the treatment of various neurological
15 conditions characterized by death, degeneration or injury
of neuronal cells.